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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/783,958	02/20/2004	Robert S. Whitehouse	14074-007001	4826

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EXAMINER
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BISSETT, MELANIE D

ART UNIT	PAPER NUMBER
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1711

DATE MAILED: 09/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

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<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/783,958	WHITEHOUSE, ROBERT S.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Melanie D. Bissett	1711	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-75 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-75 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>6/04;8/04 (3 total)</u> | 6) <input type="checkbox"/> Other: ____.  |

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***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-16, 20-36, 40-46, 48-55, 57-71, and 74-75 are rejected under 35 U.S.C. 102(b) as being anticipated by 3M. 3M (WO 96/05264) can be found on the applicant's Form PTO-1449.

3. 3M discloses adhesives comprising polyhydroxyorganoates having a  $T_g$  less than 20 °C (abstract). The adhesives have open times of at least 7 days (p. 6 lines 6-15) and include mixtures of two PHA compounds (p. 6 lines 16-21). Since the ranges are both open to those values near the endpoints, it is the examiner's position that the preferred  $T_g$  values of "about -5 °C" overlaps the claimed "about -10 °C" (p. 7 lines 13-21). This passage also suggests weight average molecular weights of preferably at least 100,000. Additives, including those claimed are used in amounts as little as 0.1% by weight (p. 14 lines 1-7). The exemplified polymers have polydispersities up to 3.03 (PHO/U). Examples teach dissolving the polymers in organic solvent, where the solvent is evaporated. Thus, the reference suggests the claimed composition having less than 1% by weight of solvent. The examples and testing procedures also teach steps of contacting the composition to a substrate, of pressing the PHA between two surfaces, and of separating the surfaces.

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4. Thus, the reference teaches the claimed open time, solvent,  $T_g$ , molecular weight, PHA blend, and polydispersity. Although the reference teaches a high peel strength, the reference does not teach the same bond strength in the claimed units (tables). Also, although the reference suggests that the polymers have low crystallinity, no percent is given (p. 7 lines 6-12). However, since the materials used in the invention are the same as those found suitable by the applicant for the invention, and because the polymers and compositions have the claimed molecular weight,  $T_g$ , polydispersity, and open time claimed by the applicant, it is the examiner's position that the polymers and compositions would inherently possess the claimed crystallinity, surface tack time, and peel bond strength.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 37-39, 47, 56, and 72-73 are rejected under 35 U.S.C. 103(a) as being unpatentable over 3M.

7. 3M applies as above, suggesting that blends of PHA polymers be used but failing to exemplify blends having different molecular weights. However, it is noted that a blend of two of any of the exemplified polymers would have a weight average molecular weight difference of at least 1,000, and a blend of the higher molecular weight materials

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with either of the lower molecular weight materials would have a difference of 50,000. It is the examiner's position that it would have been prima facie obvious to blend the exemplified materials with the expectancy of forming adhesives of equally improved adhesive properties. The reference also teaches lower molecular weight materials (as low as 30,000 (p. 7 lines 16-21)). It is the examiner's position that it would have been prima facie obvious to use a lower molecular weight material with one of the exemplified higher molecular weight materials (having a difference of 100,000) to produce a blend of lower viscosity.

8. Claims 17-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over 3M in view of Procter & Gamble. Procter & Gamble (WO 97/04036) can be found on the applicant's Form PTO-1449.

9. 3M applies as above, teaching chloroform solvents but failing to teach aqueous solvents or aqueous mixtures. Procter & Gamble teaches PHA adhesives for non-woven substrates, where mixtures of organic solvents, including chloroform, and water are used to form dispersions (abstract; p. 16, line 1-p. 17 line 6). Because water is included, the adhesives are more environmentally friendly. Therefore, it is the examiner's position that it would have been prima facie obvious to use mixtures of immiscible organic solvents and water in the adhesives of the 3M invention to form environmentally-friendly adhesive dispersions.

***Information Disclosure Statement***

10. Some of the references have been stricken from the forms because they have been considered on other forms.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melanie D. Bissett whose telephone number is (571) 272-1068. The examiner can normally be reached on M-F 8-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on (571) 272-1078. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Melanie D. Bissett  
Patent Examiner  
Art Unit 1711

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